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ARE TEACHERS' ASSOCIATIONS DESIRABLE, AND WORTHY OF SUPPORT?

NEARLY thirty years ago, the teachers of Essex County, in the eastern part of Massachusetts, conceived the idea of uniting their individual influence for the purpose of giving a general impulse to the cause of education. Long had they labored, each in his secluded prison of toil and perplexity, destitute of stimulus to make improvements in method, and without hope of adequate reward, if, by extraordinary efforts, uncommon results should be produced. Their vocation was derided; in society they were treated less worthy of respect than the humblest tradesman or laborer. Committees recognized them *by authority;* parents, whose children were under their care, seemed to be impressed with the idea that they had a sort of vested right to dictate, not only in respect to *what* and *how* they should teach, and the *kind* and *quantity* of punishments they should inflict, if any, but they absolutely sent these poor servants of the people about from house to house at will, to get their food and find a place to rest their weary bones after the toils of the day were ended. As to compensation for their efforts, their exhausting labors and corroding cares, it was less than that of the cobbler who patched the boots, or the tailoress who repaired the tattered garments, worn by the boy whose intellect, moral character, and manners were cultivated by the teacher, — the *artificer* of *manhood.*

In such a condition of things, it is not strange that young men and young women, in their solitary confinement, and, we had

almost said, servile labor, should yearn first of all for sympathy; that they should cast about to find those who could appreciate their labors, their cares, the vexations and irritations to which they were subjected. And to whom could they look better than to those who were daily suffering and enduring the same trials?

A few resolute spirits, fully impressed that the vocation, as it then existed, was not worthy of the great object it aimed to accomplish, to transform untutored childhood into refined, polished, talented manhood; believing that such an agency could be improved in its character and efficiency, that those who were employed in the work of redeeming human nature from its subjection to vulgar animal propensities and degrading ignorance, to a degree of moral purity, to intellectual light and rational enjoyment; believing that those who were wasting their strength, that others might be strong and enjoy, *might* and *ought* to be respected and fairly compensated, — these came together, as it were, of one accord, moved by one common impulse, and after due deliberation formed that venerable institution, the Essex County Teachers' Association; the first in Massachusetts, the first in New England, perhaps the first in the world, known as an association of Common School Teachers.

About the same time, the "American Institute of Instruction" was organized. This association was composed of teachers of all classes, and the leading friends of education from the various New England States chiefly; but others were admitted from the West and South. What an influence it has exerted during the last quarter of a century, few can understand, except those who have followed its progress and traced its effects.

About thirteen years ago, the "State Teachers' Association of Massachusetts" was formed at Worcester, and has held its annual meetings since in various parts of the State. In pretty rapid succession, every county of the old Bay State, except poor old Hampshire, has organized its County Association of Teachers. In many places are town and city organizations of similar character for mutual improvement.

From the foregoing sketch, it will be perceived that in the "dark ages" of public schools and school teaching, a sort of instinctive impulse drove teachers to rescue themselves and their

calling from that "Slough of Despond" in which they were sunk; to relieve from an oppressive paralysis the system of our body politic, to which a hope of vigorous health under existing circumstances could never come.

At first, all these associations existed and labored for their own and the public good, at the expense of individuals belonging to them. From the miserable pittance which teachers then received, they cheerfully paid their own expenses, and generally took their time of meeting in vacations and on school-holidays.

But the State, perceiving at length the regenerating influence which these associations were beginning to exert, liberally came forward, and to the "American Institute of Instruction" appropriated $300 annually, for a series of years. Subsequently, the same sum was given to the State Teachers' Association for five years.

Next, after having contributed large sums for the support of Normal Schools and Teachers' Institutes, the State offered to each county in which a regularly organized Teachers' Association existed, holding two meetings in a year, the sum of $50 per annum, to meet its current expenses.

Thus far, then, we have the sentiment of the most enterprising teachers in the State, expressed by their energetic action, at a time of discouragement and darkness that would make most hearts quail at the very thought of laying their hand to such a work as that of arousing the public mind from the lethargy that prevailed a quarter of a century ago.

We have, added to their efforts and co-operating with them, the judgment of enlightened educators and educated men out of the teachers' profession, — legislators, who make laws to regulate instruction, and hold the public purse by which it is sustained in common with all our State Institutions.

Look, also, at the general and generous expression of the people, — in addition to what their legislative representatives have done. Do they not welcome teachers as they assemble at their meetings? If they have not been aware of the value and influence of such associations previous to the *first meeting* in their neighborhood, they seldom fail to appreciate it after one has been held. And little argument is generally needed to induce them

to open their houses afterward. Nor should the generosity of railroad officers and corporations be overlooked, by whose liberality teachers have enjoyed great facilities in travelling at greatly reduced expense in all parts of the State.

On the contrary, objectors can scarcely be found; and, if they are found, with scarcely an exception they are either too ignorant to appreciate the value of a well-cultivated mind, or too niggardly and too selfish to let a penny leave their grasp for any object which shall not promise to return the per cent of a Shylock, or a Wall-street broker.

Let us look for a moment at the results of these associations. "By their fruits ye shall know them." It has generally been thought that the "educational reform" which began in 1837, under the lead of Hon. Horace Mann, first Secretary of the Board of Education, received its chief impulse from the doings of the American Institute of Instruction, and the efforts of the Essex County Association, as before stated. Certain it is that all the great changes and improvements in schools and school-books, have been made within the time of their existence.

School architecture, school apparatus and furniture, and school-books, have been most decidedly improved. Classification and gradation of pupils, adaptation of studies, and an extension of their number and subjects taught, may be mentioned, whereby a pupil is enabled to accomplish five-fold more than formerly in the same time. Greater mental discipline is likewise attained by the method of study.

In government, too, not less progress has been made. Reason, common sense, — agreeable incentives to order and propriety, — have, in a great degree, been made to supplant brute force.

And how is it with the teacher himself? The higher literary qualifications required in the teacher elevate him socially in the estimation of the community; so that if he is as well educated, and deports himself with becoming propriety, it is his own fault if he is not as much respected as the physician, the lawyer, or even the clergyman. Why should he not be? In the highest sense, the thoroughly qualified teacher is a physician, instructing his pupil how to take care of the body so as to secure long life and health in the highest perfection. Nay, he does better than

the physician; for he teaches his pupil how to prevent the necessity of a physician's services. In like manner he shows him how to live peaceably with his neighbor, to be a law unto himself, and thereby avoid strife and litigation. Thus he learns to *use* the *law* in the wisest manner. To accomplish the latter, he must act in concert and co-operation with the expounder of the gospel. Let the teacher lay a firm foundation in *intellectual culture* and *moral principle*, and will not the preacher find his work more effectual and easy? Both teacher and preacher work on immortal mind. Both should labor to attain ultimately the same end. Why should the one be honored, and the other despised? It is not so, except by neglect, or at the option of the teacher. Whatever advantage station and rank may confer, this the teacher may enjoy, if he possess talent and cultivation and judgment to use them wisely.

Such are some of the grand results from the late reform, beginning, as we believe with a Teachers' Association.

We have time to allude to but one more, but this is a *material one* in more than one sense. The compensation received by the teacher is increased by more than one hundred per cent, upon an average, during the last twenty years. In many cases it is two and three hundred per cent greater than formerly.

The amount raised by taxation for the support of schools in the State in 1840, according to the report of the Secretary of the Board of Education, was $491,015.23. In the year 1857, the sum raised was $1,283,427.75, being an increase of about *two hundred* per cent; while the increase of population, and consequently the number of children belonging to the schools, has been only about *fifty per cent* in the same time.

Who ever heard, previous to the third decade of the present century, of female teachers receiving for services in a public school, a salary of $400, $500, $600, and $700 a year? But these salaries are not unfrequent in our large towns and cities; nor are they deemed extravagant sums to be paid for superior instruction. True, all cannot obtain so large compensation; for positions which will command it demand peculiar talent and high qualifications. Nevertheless, all inferior grades of schools afford a proportionate increase of pay.

We need not enter into detail on this topic; the facts are within the reach of all. Now what greater encouragement, what greater stimulus do teachers need, than the increased respect in which their vocation is held, and a liberal remuneration for their services, to incite them to excel in their profession; to understand the whole machinery of our educational system; to obtain an intimate acquaintance with all the processes requisite for success; to take the lead, the initiatory steps, in all improvements; to be the authoritative source of information respecting the whole system of public instruction in our commonwealth, as well as scientific, skilful teachers within the walls of the school-room?

The vocation of the teacher is sufficiently recognized as one of the most important elements of our social and political national existence. Indeed, the *sentiment* in favor of the widest extension of knowledge among the people may be said to be universal; and those who are the most efficient agents in accomplishing the work are respected and honored as public benefactors. If this is evident in our present stage of educational progress, have not teachers and educators both the power and inducement to carry the processes of education to an almost infinitely higher degree of perfection?

We have, hitherto, manifested no small measure of sensitiveness and querulousness because the world has been slow to recognise the vocation of the teacher as a distinct and "*honorable profession.*" And have we been able to show our title to it, — to exhibit our undisputed claim? The "learned professions" have adopted a standard whereby they may determine who possesses requisite qualifications, and is worthy to be admitted into their fraternity; and thus they are enabled to draw a line of demarkation between them and the whole field of quackery, with such clearness as to be readily discerned. To be a worthy member, each individual is bound to regard self-respect, and to honor his profession by personal merit and earnest devotion to it. They have no outside committee through whose hands all candidates for enrollment must pass, and by whom, by slight examination or personal favor, membership may be gained. Why should not we, to whom is entrusted the business of laying the foundation upon which every other calling must erect its superstructure, — why

should not teachers, be as deeply impressed with the dignity of their office, as jealous of their prerogatives, as efficient in resisting those leveling influences which degrade the profession, as the physician, whose highest ambition is to heal the maladies of the body? Not because a healthy body is of greater importance than a sound mind; not because the physical constitution is to be ranked above the real *essence* of the man. Is it not rather because teachers, as a class, have not attained to a full comprehension of the work in which they are engaged; because they have not a strong enough conviction that it is a labor which devolves upon *them* to do, and that nothing short of the highest success should satisfy their aspirations? Is there not truth in the severe remark — and severe because true — of a distinguished educator and careful observer, that "teachers have less professional pride than members of any other liberal calling; too many are intruders who have pitched tents for temporary purposes, intending to steal away into some other profession at the first good chance"?

"But what have 'Teachers' Associations' to do with all this?" Much every way. We believe they have been the efficient cause of the great and favorable changes wrought in our system of public instruction during the last quarter of a century. To Josiah Holbrook, more than to any other individual, is credit due for the impulse he gave at the incipient stage of teachers' meetings for mutual improvement. Those who remember the little "gatherings" of thirty years ago will not forget the enlarged views and ingenious apparatus which this neglected, but noble pioneer in the cause presented for the benefit of those who had a heart for the work. First came experiments with his apparatus, and the necessary explanation accompanying to develop the principles to be illustrated; and thence originated the course of "Lyceum Lectures," which, with various modifications, have been continued to this day.

Previous to the inauguration of the "Board of Education" in Massachusetts, in 1837, under whose auspices its first Secretary, Hon. Horace Mann, delivered lectures in each county of the State on educational subjects, clouds and darkness still brooded over the cause. Gleams of light, however, were visible; the public

mind was partially aroused from its apathetic state. The creation of the Board of Education was one of the first acts of the people pointing towards a fundamental reform. The canvassing of the State by its Secretary, who called together the teachers and the people, to address them and invite their co-operation, was the first efficient movement by the Board. Before this time, where were our "*Normal Schools*," projected for the more thorough preparation of teachers for their duties? Not one had ever been established on this continent. Where were "*Teachers' Institutes*," designed to benefit those teachers who could not obtain the advantages offered at the Normal Schools? Nowhere. They came in the progress of events, as a matter of necessity, — indicating both the advancement of educational facilities and the elevation of the teacher's profession.

With this hasty review of the past, we venture to ask if the influence of our Teachers' Associations has been duly considered by professional teachers. If, through their instrumentality, the work of reform has been in any measure accomplished, may they not, by improved methods of conducting them, be rendered still more efficient means of improvement to individuals who attend them, and a more powerful agency among the people for the advancement of our school system to a higher degree of perfection?

The information which may be obtained from lectures, discussions, &c., comes fresh from the experience of those who are called upon to speak; and the attentive hearer can scarcely fail of carrying home to his field of labor that which shall alleviate his toil, interest and edify the pupils under his charge. But mind in contact with mind, like flint and steel, strikes out new thoughts, even on trite subjects. Subjects long dormant in the mind assume a new and interesting aspect by agitation and earnest discussion. But not instruction alone pays for attendance upon the meetings of teachers. Peculiarly isolated as teachers are by their pursuits, they need to break away from their constant association with children, and hold converse with adult mind. Those engaged in similar employment may always find fruitful and interesting topics of conversation; they may receive and impart that sympathy which shall infuse new vigor and fresh energy on returning to their duties.

One suggestion more, and we have done. Suppose every teacher in the State had labored only within the walls of the school-room, ever so faithfully, and none of the many assemblages of teachers had ever occurred, during the last twenty-five years, each confined to his own limited experience; if, of the almost innumerable lectures, addresses, and educational publications, nothing had been spread before the community, — would our institutions of learning, would teachers as a class, have occupied the exalted position of to-day? Do we not owe something to Teachers' Associations? While the State extends a fostering hand, let us, as teachers, manifest a due appreciation of the benefits received, by personal efforts, to render all organizations for the promotion of knowledge more efficient.

There is no other business within the pale of civilization so controlled, so completely under subjection to outside influences, as that of the public teacher, so dependent on others, oftentimes ignorant of the secret springs.

ASSISTANT TEACHERS.

In most of the large schools of our cities and most populous towns, it has become an established practice to employ assistant teachers, who may share the labors and responsibilities of the principal of the school. The *success* of a school, and the *substantial aid* rendered to the principal, depend so much on the character and qualifications of such co-laborers, that a few words respecting them may not be deemed inappropriate.

And, first, we notice the very general erroneous impression of young teachers, that to be an assistant in a school is very much easier and less responsible than to have the whole charge and supervision of even a small school. True, it may possibly be made so by the assistant; but it does not legitimately follow that it should be so. Whether it be true or not, must depend not a little on the efficiency in government, and the perfection of the system and organization of the school. But, however perfect

these may be, inefficiency, or want of qualifications which would diminish the usefulness of a teacher at the head of a school, would be more or less perceptible in the position of assistant; and, whatever degree of delinquency may exist, just so much is the toil and responsibility of the principal increased above what it should be. If an assistant has not a capacity for governing, it will be apparent in either position; and, if the consequences are not as conspicuous and mischievous in the latter as in the former case, it is because the evil is counteracted by superior government elsewhere. Probably the main advantage, which a teacher in any respect incompetent can expect to gain, is derived from the facility by which that incompetency can be concealed, or shared in the general defects of the school.

It is plain, then, that such an assistant is a negative quantity, an encumbrance rather than an aid in the institution. The teacher would often more easily and successfully perform all the duties alone than, while attempting to share them with another, feel obliged constantly to strengthen and guard the weak points in the assistant. Evil habits in behavior acquired by pupils in the recitation-room are insidious, and, both there and when developed in the school-room, cost the teacher more effort to eradicate, and occasion far more perplexity in the general management, than the performance of all the duties properly belonging to his own department. And this is not all; for, if the general reputation of the school becomes the subject of criticism, it is a matter beyond his control, however perfect may be his qualifications for his office, and he receives the condemnation which properly belongs to another.

We would not, however, wish to convey the idea that a teacher, who is not fully competent to stand at the head of a school, may not often be tolerably successful as an assistant. Many have an executive power to perform the work laid out for them, when they fail altogether in attempting to construct their own system of operations.

The following may be deemed essential characteristics of one who is what the title implies, — an *assistant*.

1. Capability to impart instruction in the department assumed, quite equal to that of the principal. It is really the work of the

principal, committed by necessity to another. Present attainments are not sufficient; constant study and research for new applications of principles and methods of presentation are indispensable, both to the successful progress of teacher and pupil.

2. Knowledge of human nature, in order to control and direct the mind. Herein is the secret of "government." Ability to impress pupils that there is no necessity of appealing to the principal on trifling occasions, for authority or punishment, is essential. Personal *presence* and action should be so much above the child that it will demand respect, if not reverence; at the same time, enough of affability and condescension to draw out the good-will and kindlier feelings of pupils.

3. A thorough acquaintance with all the duties of the office, and a feeling of responsibility to perform them with reference to the general prosperity of the school. The idea is too common, that, if the assistant faithfully teaches the classes assigned, and governs them in the recitation-room, it is enough; whereas the most effectual service is often rendered by incidental co-operation in the general action of the school. In whatever manner the assistant can strengthen the hand of the principal, in government or instruction, in the class-room or school-room, in encouraging those well disposed or noting and bringing to justice delinquency in every form, the assistant teacher's excellence will thus be manifested.

4. A cordial understanding and sympathy with the principal is of the highest importance. The opposite of this may be endured for a while, but always to the serious detriment of the school; and in the end it must terminate in a separation of the parties, and often with an acrimonious spirit quite undesirable. No business more readily feels the inspiring influence of the cheerful, unanimous spirit of co-laborers, than that of the instruction of youth.

While the assistant teacher is employed, ostensibly, for a special purpose, there must be a general service rendered; the same general objects to be gained in the administration of the school must have the hearty, united action of all engaged, both principal and assistant.

ENTHUSIASM.

[Extract from a Lecture by the late P. B. Strong, Principal of the Court St. Grammar School, Springfield.]

Men of genius, however much they may differ in other respects, universally exhibit the same traits of character in one,—they are always earnest and enthusiastic. Enthusiasm is the very life-blood of genius, and is as essential to success as the air is to animal life. No man can be either good or great without it, in some degree; and yet mankind often look with a cold and suspicious eye upon those who manifest it.

"Idle dreamers," "speculative theorists," "visionary enthusiasts," are terms often applied without any discrimination or judgment to all who may be in advance of their age, or show any extraordinary interest in the pursuit of knowledge under difficulties, or who aim at anything like perfection in science or art. Any man who does not worship at the shrine of the material, who does not estimate the value of every thing by its worth in the market, who hears any music besides the ceaseless rattle of accumulating dollars and cents, who sees any beauty in the world besides lofty warehouses and freighted ships and paying railroads, is condemned as not understanding the object of life and the true use of the faculties with which God has endowed us. It will be my purpose to show that enthusiasm is the soul of success, and that all men of every class who accomplish anything exhibit it. It will be necessary at the outset to define clearly what is meant by the term, and the distinction between it and fanaticism.

Webster says, "Enthusiasm is heat of imagination, and when chastised by reason and experience becomes a noble passion, an elevated fancy, a warm imagination, an ardent zeal, that forms sublime ideas, and prompts to the pursuit of laudable objects. Such is the enthusiasm of the poet, the orator, the painter, and the sculptor; the patriot, the hero, and the Christian."

Fanaticism, on the contrary, has no foundation in reason for its excessive activity. It is enthusiasm run mad. It acts without discrimination, and with over-heated zeal. It goes to extremes, and like a poisonous blast withers and destroys, and thus defeats

its ends. They are the same in kind, but not in degree. Enthusiasm is not fanaticism, any more than a refreshing shower is a devastating flood; or the fine breeze which fans the cheeks of weary laborers, or fills the sails of commerce and speeds them on their prosperous way, is a fierce destroying tempest; or the life-imparting warmth of a summer sun, which clothes the earth with verdure and with beauty, is an all-consuming fire.

The enthusiastic man is an active, living man. He sees something to be done, and hastens to accomplish it. While others sleep, he toils on and wins the prize. While others are disheartened and discouraged, he gathers new strength from every defeat; and every fresh obstacle inspires to nobler endeavor. This ardent spirit will enable a man to do anything which lies within the range of possibility.

Human genius has expended its energies and achieved its triumphs in nearly every department of art and science. Long years may pass away between the first conception of an idea and the complete realization of it in a perfected machine, a newly discovered continent, or the solution of some difficult problem in nature's book of mysteries; but this fervent spirit will chain a man to his self-imposed tasks, until, conquering every opposition, he rejoices in a sure success. A Carthagenian general takes his infant son to the altar of his country and makes him swear eternal hatred to the Romans. This little circumstance decides the character of Hannibal. His feeling of hate grows stronger every hour; he is swayed by an iron will; he moves with an unconquerable energy; and, in the prosecution of his purpose, how do the everlasting Alps melt away at his feet, and Rome's proud eagles cower before him! The man who jeers at those whose minds are of an active, imaginative temperament, — at painters, poets, sculptors, and musicians, — may be himself, though all unconsciously, remarkable for enthusiasm. We do not all have the same tastes by nature or by cultivation. But there is no man who deserves the name who has not some favorite occupation, profession, or theme of thought.

Greatly is that man to be pitied whose soul is never animated by one noble and generous sentiment; whose heart never throbs with the love of country, home, or friends; whose pulses never

quicken at the tones of endearment heard at the fireside; whose eye never kindles at the sight of loved ones; who never felt the glow of kindly charity; who has no employment but killing time, and no profession but idleness. Oh! forsaken of God and despised by man must he be who has no eye for beauty, no ear for music, no hand for toil, no head for thought, no heart for love, —

> "Who knows no reason why he's born
> But to consume the corn;"

and who shall go down

> "To the vile earth from whence he sprung,
> Unwept, unhonored, and unsung!"

It is enthusiasm which makes the old talkative, and the young eager listeners. The gray-haired cripple soldier will feel the pulses of renewing vigor throb in his veins, as he shoulders his crutch, and with all the ardor of youth relates the thrilling incidents of the battle-field, of sacked cities and burning villages. It makes one man a traveller, who fearlessly encounters perils by sea and perils by land, storms and tempests, the colds of the frigid and the heats of the torrid zones, hunger and fatigue, to roam through trackless wastes and burning sands, to pry into undiscovered realms of barbarism, and bring to light the hidden mysteries of the wilderness; and then perchance, like Mungo Park, to die with none but stranger tribes to close his eyes and hollow out his lonely grave. It prompts the daring mariner to brave the wrath of old Neptune; and, however fiercely he may shriek in his ears amid the howling of the midnight blast, with an eye on the compass and a hand on the wheel he guides his loved vessel to her destined port. He will, with chosen men of kindred souls, steer his prow directly to the North; and, battling with the ice-fields and contending with the frost, seek the unknown way through the Polar Sea to the shores of the Pacific, and when defeated return again like Sir John Franklin to the conflict, until the Frost-King heaves up an impassable barrier of ice around him, and refuses to allow him to return to the loved home of his mourning family, to tell the story of his trials and his hardships.

It makes one man a shrewd, close vender of fancy articles,

who will enumerate the different articles in his assortment, and expatiate upon the excellences of each, from razor-strops to soap, with the volubility of a dozen Frenchmen. It will make another man close, clear, calculating, money-getting, who will deal in stocks and exchanges like the Rothschilds, and lend money to kings to keep them from bankruptcy. Who sends out ships to every sea, which stop at every port, and bear home the products of every clime? Who lines our wharves with lofty warehouses, and carries on the commerce of the world? Who sends out one ship to seek for whales among the icebergs of the frozen zone, and another for a like purpose among the whirlwinds of the torrid? Who sends ships to Kamschatka for furs, and to Africa for ivory and wild beasts; to China for tea, and to Java for coffee; to Ceylon for spices, and to India for silks; to the West Indies for sugar, and the Carolinas for cotton? Who carries ice to Calcutta, and clocks to Australia? Who does all this, if not the active, ardent, energetic, persevering merchant?

This spirit is confined to no class and no profession. The dust-covered son of Vulcan, hammering at his anvil with unwearied vigor, whether fashioning a bayonet or moulding a ploughshare, forging a spear or turning a pruning-hook, drawing a nail or setting a shoe, making machinery or building locomotives, is animated by a spirit of emulation and a desire to excel. A man's power, physical as well as mental, depends in a great measure upon the activity and excitement of his mind. Prodigies of valor on the battle-field have been performed, with no thought of danger or fatigue, in the high-wrought excitement of the hour. That little band of three hundred Spartans at the pass of Thermopylæ, with undaunted hearts withstood the countless hosts of Xerxes, and gladly offered up their lives in obedience to the laws and in defence of the liberties of their country. A few words from Napoleon on the eve of battle, and the consciousness that his eye was upon them, would cause his soldiers, who adored him, to march with firm steps and brave hearts in the face of a leaden tempest which would have completely routed a less enthusiastic army. A man without enthusiasm has no power, whatever may be his natural abilities. He is like a sleeping Hercules, or like Sampson unconscious of danger and shorn of his strength, with

his head upon the lap of Delilah. He is like a cannon, with its balls and chain-shot, without the powder to give them destructive force. He is like a locomotive, without the fire and steam to give propelling power. No painter could make those matchless forms of beauty and loveliness which stand out from the canvas and command the admiration of the world without this spirit in the largest measure. When Correggio first beheld one of the master-pieces of Raphael, his cheek flushed, his eye brightened; and he exclaimed, as the consciousness of his own power thrilled his soul, "I, too, am a painter." We all remember the remarkable incident related of Benjamin West, our own distinguished countryman, when he was only seven years of age. Being set to watch the cradle of his sleeping sister, he conceived the idea of sketching the likeness of the infant beauty; and he did so with astonishing skill. When he was eight years of age, he was pre sented with a box of paints and pencils, with canvas already prepared, and six engravings. He was perfectly enraptured with his treasure, carried the box about in his arms and took it to bed with him. But he could not sleep. He rose with the dawn, went up to the garret, hung up his engravings, and commenced work. So completely was he under a species of enchantment, that he absented himself from school, and labored secretly and incessantly till he was discovered. His determination to be a painter was now made, and he had very exalted notions in regard to the dignity of his art. One holiday, one of his schoolmates came along on horseback, and asked West to get up behind him and go up to visit a neighboring plantation. "I will ride behind nobody," was the prompt reply. "Very well, then," said his mate, "I will ride behind;" so he mounted. His companion soon said, "I am to be apprenticed to a tailor to-morrow." "A tailor!" exclaimed West, "you will never be a tailor." "Indeed I shall, it is a good trade. What do you intend to be, West?" "A painter." "A painter? What is that?" "A painter is the companion of kings and emperors," said he; and fully did he afterwards realize his boyish dreams of honor and renown. Enthusiasm is the only "divine afflatus" now known to man. It is his only inspiration. Without it, poets would be mere rhymers. Milton, poor and blind, in imminent danger of losing his life

after the Restoration, for his connection with Cromwell and his devotion to liberty, was lifted by it above the disappointments and trials which he experienced into the upper firmament of thought, — into a brighter, purer region, where he could rejoice in the creations of his own genius, and dwell in a paradise more blessed than that of Eden. By it he could wing his adventurous song, as he says, that with no middle flight intends to soar above the Aonian Mount, while it pursues things unattempted yet in prose or rhyme. Milton had a profound mind, and every thing was made luminous by his glowing pen.

He threw himself into the struggle between liberty and crowned oppression, and like a moral giant battled for the right.

He was a ripe scholar, a wise statesman, a powerful reasoner, a peerless poet, and a consistent Christian. He was always and everywhere an earnest and enthusiastic man; and he was animated by a quenchless desire to benefit his fellow-beings, and write something, as he says, which the world would not willingly let die.

Poetry is eminently the language of enthusiasm. It is condensed thought; or, as one has said, "It is the grandest chariot in which king-thoughts ride."

A few words uttered with poetic terseness and vigor will often move the heart and rouse the soul more than the most elaborate appeal. Thoughts made molten in the heated crucible of a poet's brain are moulded in a form and spoken in a language which shall electrify and ennoble. The "Marseilles Hymn" found a response in the heart of every Frenchman, and will still enkindle a fire in every French bosom. The national song of the Swiss often produced such an effect when heard by their soldiers in other lands that it caused them to desert, and to such an extent that Bonaparte commanded his regimental bands never to play it on pain of death. Our own "Hail Columbia," if its stirring strains were heard in times of peril, would nerve every soul to deeds of noble daring. These are the outpourings of heated imaginations, of ardent, earnest, enthusiastic minds inspired by a love of freedom.

Even the calm, dispassionate, argumentative John Foster bears his testimony to the necessity of this earnest and soul-absorbing

spirit. In speaking of Howard he says, "He felt an inconceivable severity of conviction that he had one thing to do, and that he who would do some great thing in this short life must apply himself to the work with such a concentration of his forces as to idle spectators, who live only to amuse themselves, seems like insanity." Let then a true, reasonable, persevering, and holy enthusiasm go unrebuked. Let all men of every employment and profession remember and obey the injunction of the apostle, to be "not slothful in business, fervent in spirit." Let the agriculturist strive to make his soil the most fertile, his fields the most productive, his system the most perfect, his fruits the most luscious and abundant, his grounds the most beautiful, and his home the most attractive. Let every mechanic endeavor to be the best; and every implement of husbandry, every weapon of war, every domestic utensil, every carriage for daily necessity or luxurious pleasure, every bridge and every railcar, every steamboat and every locomotive, every humble dwelling of the poor, every stately mansion of the opulent, and every temple for the worship of Jehovah, — let these all be perfect in their kind. And, if a man be blessed with genius above his fellows, let him labor enthusiastically to realize the conceptions of his active working mind, until a discovery shall be made which shall add incalculably to the happiness of his race and the permanent prosperity of his country. Let him bid defiance to misfortune and discouragement, the neglect of friends and the ridicule of enemies, poverty and want; let him hold steadily to his purpose, — until, after long years of unrequited toil shall have rolled away, he shall at last attain the object of his highest hopes, and be crowned with an unfading laurel by his admiring country, and hailed as a benefactor by a grateful world.

Let the teacher forget that he is engaged in a vexing, thankless, and life-exhausting profession, and laboring for an unrequiting remuneration; but remember that deathless minds are given him to cultivate, and with a resistless energy, an ardent zeal, and an all-absorbing love, let him devote himself to doing good to his pupils. Let his soul burn within him, as he meets their smiling and intelligent countenances, and witnesses the daily developments of their growing minds. Let his eye brighten as he reads their

destiny in the future. One may yet guide the helm of state, like Washington, or like him lead the armies of his country to battle. One may yet, like Franklin, represent the wisdom of his country at foreign courts. One may preside on the bench of justice, like Marshall; or lead in the councils of state, like Webster; or sway the minds of the masses, like Clay; or plead at the bar, like Choate; or deliver a message from the Most High, like Whitfield. Or there may be some "who shall tread the firmament with a Newton's step, or strike the harp of song with a Milton's hand." And, higher and nobler than all, they are candidates for the society of angels, and glorified spirits in the court of the King of Kings.

TEACHING NATURAL SCIENCE.

In this intensely practical age, it would seem that education would of course be practical in its character. But this is far from being the case with our schools generally. It is the most unpractical of all things that come under my observation. In the few months that I have been a school visitor, this fact has constantly and painfully pressed upon my mind. Proofs on this point could could be given to almost any extent; but it is my intention in this short article only to state briefly a few of them.

There is one glaring defect, which, in this country, marks the whole course of education. It is the little prominence which is given to the Natural Sciences. With some exceptions, here and there, these are excluded from education till the college, or at least the high school or academy, is reached. The result is that a very inadequate knowledge of them is gained by the great majority of the pupils that go through the course; and those who stop short of the high school or academy get no knowledge of them, except what they chance to pick up from books or occasional popular lectures.

Now, if I had time to do so, I could show most abundantly that some of these studies are second to none, not even to arithmetic

and geography, in practical value. But a few hints on this point must suffice. Nearly all our improvements and inventions are really applications of natural philosophy or chemistry. These sciences, then, have to do with the whole range of common things around us. Motion, heat, light, air, water, &c., what more common things than these? And yet how little is known about them by most of even the advanced pupils in our schools! The numberless facts which they present are certainly of more practical use than a very large proportion of the geographical details with which the memories of children are burdened so very early in our schools. They are more so than algebra and the higher mathematics, which are so often made the occasion of great displays at examinations, when the pupils would stumble at questions of the simplest character about the air they breathe and the water they drink, and perhaps could not state the proof of the fact that the earth is round.

But, besides the direct practical value of these studies, they have the indirect value that the mathematics possess in strengthening the mind. They cultivate the perceptive and the reasoning faculties together; thus forming that habit of *intelligent observation* which is a material element of success, whatever may be the pursuit in which the pupil may engage in after-life. The mental activity awakened by these studies is of a more genial character than that called forth by mathematics; and it is as essential to a proper development of the mind, as it is to that of the body, that the drudgery of hard labor should be intermitted with occasional agreeable exercise.

What I have said of natural philosophy and chemistry may be said to some extent of the other natural sciences. Studies which, for example, relate to either vegetable or animal life, have manifestly both a direct and indirect practical value. They are not only replete with most interesting subjects of observation, but they furnish many facts which are of practical use. On this last point I will cite a single fact. There are two insects which infest the cotton plant. A war was waged, year after year, by every cotton-grower against one of these insects, because it was supposed to be very destructive to the plant; but after a while it was discovered that a great mistake had been made. It was found that

the other insect, which was smaller, did the mischief, and that the one which had been destroyed in such numbers was really the cotton-growers' friend, for he lived by preying upon the smaller insect. Now, if the pupils in our schools were so taught as to be led to observe the habits and characters of animals, such mistakes, if made at all, would not be so tardily corrected. Many a beautiful songster and useful worm-killer would have been spared in our fields and woods, if observation on the subjects referred to had been properly encouraged in education. Indeed we may say that the whole subject of the relation of animal to vegetable life, so important to the farmer and gardener, will never be thoroughly understood till these subjects be made prominent in our schools; thus inducing, at an early period, a disposition to observe in regard to them.

But it will be asked, How early in education should these subjects, and those of natural philosophy and chemistry, be introduced? We should *begin* to introduce them at the very outset. They should in some measure be taught as early as we teach anything. "Impracticable!" I presume many a reader will say. It is so, I allow, if it is not done right. But how is right? First, *all technical terms must be discarded.* The simplest language must be used. All that cannot be communicated in such language must be excluded. Secondly, *only such things must be introduced as can be understood.* All else must be left for future stages of the pupil's progress.

What I have said will perhaps be conceded by most in relation to plants and animals. A child can obviously be easily interested and instructed by teaching him facts about their growth and habits. But many will perhaps doubt as to teaching natural philosophy and chemistry to very young scholars. That it can be done very early, to some little extent even at the outset, if the rules above given be strictly observed, I know by actual experience. Even some interesting facts illustrative of chemical affinity can be profitably taught to children of eight or even six years of age. I could give examples if I had space and time.

The difficulties which have been experienced, in attempts to teach science to the young, have arisen simply from a disregard of the two rules which I have given. It is not only useless, but

injurious, to load the memory of a child with technical terms and formal propositions that he cannot understand. But this is done extensively even in the common studies, — geography, grammar, and arithmetic; and, when the teaching of natural science is attempted, the same course is pursued. This is not so much the fault of the teachers as it is of those who make the text-books, the guides for teaching. They are for the most part constructed in opposition to the principles brought out in this article. A thorough reform is needed here. Most of our school-books have been made by mere compilers, and of course are unskilfully made; and, as most teachers follow the mode of teaching which they find in the books they use, it is of immense importance that these should be constructed aright.

The subject upon which I have thrown out a few hints is an extensive one, and demands more than the limits of a brief article for its full discussion. I hope that others will take it up, and give their views upon it in the pages of your journal. The subject is a practical one, and merits the serious attention of teachers who wish to do all their duty to the pupils under their charge.

CHEMICAL APPARATUS AND EXPERIMENTS.

[The following article is full of valuable suggestions to those teachers who are desirous of adding experimental illustrations to their ordinary class-instruction in Chemistry. Every suggestion on this very practical and all-important branch of study, which tends to simplify the processes of experiments, reduces expense, and secures increased certainty in the results, should be received as a positive gain by the teacher. The writer is a thorough student in physics, a graduate of one of our first scientific schools; and his position and pursuits give him peculiar advantages in this department of study. — P.]

Of the various departments of natural and physical science taught in our higher institutions of learning, public sentiment, at the present time, is probably more unanimous in favoring the study of chemistry than of almost any other special science. This feeling naturally arises from the ideas of power which the great public mind receives from the consideration of the revolutions which chemistry, conjoined with physics, has effected, and

is daily effecting, in the political, commercial, and social relations of the world; and power attained, too, in this country is generally considered as synonymous with wealth. One great drawback, however, to the introduction of chemistry, as an element in the course of instruction followed in high schools and academies, is a lack of apparatus, and a feeling of inexperience on the part of the teachers, in arranging and conducting experiments. A few thoughts therefore on the subject of apparatus, and the method of illustrating chemistry when studied in connection with a text-book, from one who claims to have had some experience, may not be altogether valueless or inappropriate.

A word, in the first place, as to text-books. Of these there is no lack. The teacher will, however, do well to restrict his choice to Stockhardt's, Draper's, Porter's, or Wells's; the last being the most recent publication. Gray's and Comstock's chemistries, which are still somewhat used, are entirely behind the times, and should be discarded. Silliman's and Fowne's are better adapted for advanced students. The less a chemical text-book for ordinary instruction partakes of the character of a condensed encyclopedia, and the more it abounds in practical and familiar illustrations of the applications of the science to the arts and wants of every-day life, the better.

The apparatus essential for illustrating and facilitating the study of chemistry, considered as a part of a high-school or academical course of instruction, need not necessarily be expensive or complex. The tendency, during the last ten or fifteen years, has been to greatly simplify and cheapen scientific apparatus of all kinds; and especially is this true in chemistry. The chemist of to-day almost ignores the tools with which his predecessors of twenty-five years ago worked. Light and simple spirit-lamps have superseded the heavy and bulky furnaces; convenient and portable gasometers, the complex arrangement of gas-bags and bladders; cheap flasks and glass tubing, expensive retorts: while alembics and iron bottles are literally "among the things we read of." In this simplification of apparatus, there is, however, a tendency to excess; and some authorities and text-books encourage the idea that a course of experimental chemistry can be successfully conducted with an apparatus mainly improvised from

a few common bottles, tobacco-pipes, and glass tubing. With this notion, which at the present is somewhat popular, we have no sympathy. It is no doubt true that some eminent chemists have instituted some profound investigations, and made brilliant discoveries, with exceedingly crude and ill-adapted appliances; but it is also equally true, that the tact and ability required to overcome the inherent difficulties of such undertakings have been deemed sufficiently singular to be worthy of especial record and comment. The application, therefore, of any such exceptional cases as arguments in favor of relying on imperfect and ill-constructed apparatus, is manifestly as unfair as it would be to recommend the poor and inexperienced mechanical genius to commence practising with a bit of iron hoop, on the ground that remarkable products of ingenuity had been wrought with a similar implement. It was said of the eminent English chemist and physicist, Wolloston, that he carried his laboratory in his pocket, and illustrated an extensive course of chemical lectures with an apparatus which could be conveniently arranged upon a small tea-tray. Dr. Wolloston was, however, a man of most finical nicety, and gifted with a most remarkable skill in manipulating, derived from long and manifold experience; and, besides this, it would be well to remember that we have had but one Wolloston in our day and generation. Every experienced operator, moreover, will testify that chemical experiments are most easily and successfully performed with apparatus expressly designed and constructed for the purpose of experiment, and that what is saved in expense by using imperfect and unsuitable materials will be more than lost in time and vexation of spirit. It is the expert, and not the tyro, that can work successfully in chemistry with poor tools.

We believe, therefore, that the most practical advice that can be given to teachers who are lacking in experience in chemical manipulations is to procure the very best apparatus their resources will admit of, as being in the end the cheapest and most serviceable. It is better far, also, to have a few good, permanent, and wholly satisfactory constructions, than many cheap, shabby substitutes. In purchasing apparatus, it will be found advisable to first send to some one or more of the permanent dealers in

Boston, New York, or Philadelphia, for an illustrated and priced catalogue of their stock. With this, and the text-book proposed to be used, the selections can be made most judiciously and economically.

If called upon to recommend a list of the most serviceable and indispensable articles requisite for a short course of chemical study, we should submit substantially the following: —

A retort-stand, with movable rings of various sizes; a glass (4 oz.) spirit-lamp; 1 dozen test-tubes, and stand; 2 wide-mouth, stoppered glass jars, or receivers (medium size); 1 tall and plain cylindrical air-jar; 4 flat-bottomed, thin glass flasks, suitable for generating hydrogen, hydrosulphuric, and carbonic acid gases; 1 quarter-pint stoppered retort; 1 half-pint do. plain; a gas-bag provided with stopcock and bubble-pipe; glass tubing, and small glass rods for stirrers; 2 small glass funnels; a small wedgewood mortar and pestle; a blowpipe; platinum foil and wire; 3 sheets of filtering-paper; ½ do. test-papers; a set of cork-borers; a strip of sheet caoutchouc; a round and a three-cornered file for cutting glass tubing, filing corks, &c.; a nest of earthen crucibles; 2 small porcelain crucibles; a pair of forceps; and a supply of good velvet corks. For generating oxygen gas, a thin copper flask, provided with a screw-cap, and a lead or caoutchouc tube, is to be recommended. With this and a spirit-lamp an abundant supply of oxygen can be readily generated from chlorate of potash and black oxide of manganese, and the annoyances arising from the breakage of glass, the adjustment of tubes, leakage, &c., avoided. A pneumatic trough can easily be arranged by the operator to suit his convenience.

In addition, a pair of gasometers, oxygen and hydrogen, arranged in such a way as to admit of being used conjointly as a compound blowpipe, are almost indispensable. They are now made of small size, and at very moderate expense ($15 to $20 we think), and constitute an exceedingly durable, serviceable, and ornamental article of laboratory furniture. A Berzelius spirit-lamp will obviate the necessity of ever using a furnace, and will come into use for a great variety of purposes.

In addition to the articles thus specified, there are many others, such as a small galvanic battery, an apparatus for decomposing

water, specific-gravity bottle, thermometers, scales, weights, &c., the necessity for which will depend in a great measure upon the extent and fullness of the course of experimentation prescribed or adopted.

In regard to chemical reagents, it is recommended to have the following (solutions), arranged upon a convenient stand, or tray, in clear glass bottles, fitted with ground-glass stoppers, and of the capacity of about a pint: Sulphuric acid, dilute; do. strong (oil of vitriol); nitric acid, dilute; do. concentrated; hydrochloric (muriatic), concentrated; do. dilute; acetic acid; oxalic acid; aqua ammonia; carbonate of ammonia; chloride of ammonium (sal ammoniac); chloride of barium; lime water; caustic potash; caustic soda; carbonate of soda; sulphate of copper (blue vitriol); perchloride of iron; chloride of mercury (corrosive sublimate); bi-chromate of potash; ferrocyanide of potassium; indigo-solution; acetate of lead; alcohol and ether. Also, the following in solution in one or two ounce bottles: iodide of potassium; nitrate of silver; nitrate of cobalt. Reagent bottles suitable for the purpose, with printed labels or formula, may be obtained of all dealers in chemical apparatus.

In addition, the following should be provided: 2lbs. each, chlorate of potash and powdered black oxide manganese; 1lb. chloride of lime (bleaching powder); half-pound each, sulphur, (roll brimstone and flowers of sulphur), saltpetre, alum, sulphate of copper (crystals), sulphate of iron (copperas) do.; bone-black; soda-ash; quarter-pound each, acetate (sugar) of lead, bichromate of potash (crystals), ferrocyanide of potassium, borax, chloride of ammonium, fluor spar, metallic mercury, metallic antimony; 1 oz. each, arsenious acid, corrosive sublimate, and nitrate of strontia; 2 sticks caustic potash. Phosphorus and potassium are sold in convenient quantities, appropriately put up in tin cases. Alcohol, ether, fine iron wire, tin foil, copper turnings, caustic lime, beeswax, &c., can be readily obtained as wanted. Most of the above-specified reagents are exceedingly cheap, and may be procured of any druggist. It is best, however, to order of a regular dealer in chemicals, the articles enumerated, at the outset.

The expense of such an outfit as we have thus enumerated,

excluding the gasometers and the arrangement for a compound blowpipe, ought not to exceed fifty dollars.

The inexperienced operator will also find it good economy to procure and consult some practical work on chemical manipulations, posting himself up particularly on the management and adaptation of glass tubing, the use of the blowpipe, spirit-lamps, reagents, &c. Morfit's or Noad's Chemical Manipulations, or Bowman's Practical Chemistry, are very good and inexpensive books of this character.

The teacher will also do well to bear in mind, whether he provides himself with the above-specified apparatus or not, that he can supply himself, without cost, and with very little trouble, with abundant materials for rendering his instructions in chemistry both interesting and practical. Thus, for example, suppose the subject under consideration be carbon; — the instructor has within his reach (certainly if he resides in or near a large town or city), all the varieties of mineral coal, — anthracites, semi-anthracites, ordinary bituminous, cannel, and the beautiful Albert, jet-like coal of New Brunswick; plumbago (black-lead); the lustrous carbon lining of old gas-retorts, which is so nearly allied to the diamond; charcoal; coal-tar; coal-oils; carbonic acid (evolved in an instant from bi-carbonate of soda, by the addition of an acid); and maybe a diamond, borrowed for illustration. All these, readily accessible, are impressively suggestive of the various conditions of the element in question. So, in like manner, specimens of most of the ores, the common metals, and the alloys; the alkalies, and the alkaline earth; the products of the smelting furnace, the glass-house, and the pottery; with a great variety of organic compounds,— may be easily collected; and it is by such simple and common objects that the applications of chemistry to the wants and employments of every-day life are made most familiar.

Furthermore, something can be done with chemistry in schools in which this branch of science is not considered advisable as a special subject, in the prescribed course of study. Let the teacher take occasion, when the successive daily routine has become wearisome, to give some oral and familiar instruction, taking for a topic some element, of which numerous examples

are ready at hand, as carbon, iron, lime, &c. A distinguished English naturalist once wrote an entire book on a pebble; surely, then, the great industrial classes of matter, if we may so designate them, can furnish to any thoughtful mind ready materials for a half-hour's entertaining and highly profitable discourse. Such instructions usually take strong hold of the young mind, excite the curiosity, and awaken the powers of thought and observation to such an extent that the influence is felt in every study that engages the attention.

"NOT AS THOUGH I HAD ALREADY ATTAINED."

BY J. K. L.

NOT, my soul, what thou hast done,
But what thou art doing;
Not the course which thou hast run,
But which thou'rt pursuing;
Not the prize already won,
But that thou art wooing.

Thy progression, not thy rest, —
Striving, not attaining, —
Is the measure and the test
Of thy hope remaining;
Not in gain thou'rt half so blest
As in conscious gaining.

If thou to the Past wilt go,
Of Experience learning,
Faults and follies it can show, —
Wisdom dearly earning;
But the path once trodden, know,
Hath no more returning.

Let not thy good hope depart,
Sit not down bewailing;
Rouse thy strength anew, brave heart!
'Neath despair's assailing:
This will give thee fairer start, —
Knowledge of thy failing.

Yet shall every rampant wrong
In the dust be lying, —
Soon thy foes, though proud and strong
In defeat be flying;
Then shall a triumphant song
Take the place of sighing.

Resident Editor's Department.

EDUCATIONAL MATTERS IN CANADA.

It gives us sincere pleasure to lay before our readers the following extracts from the "First Report of the Select Standing Committee on Public Accounts," appointed by the Legislative Assembly of Canada, February 26th, 1858. A correspondent in our No. for July, it will be recollected, suggested that justice seemed to require a suspension of public judgment on the alleged defalcation of Dr. Ryerson, Superintendent of Education for Upper Canada, till opportunity should have been afforded of receiving his statement, regarding the subject of the allegation referred to.

The committee above-named was empowered, in usual form, to send for persons and papers, with a view to a rigorous investigation of all matters connected with the public accounts, referred to by the House, and to report thereon. Judging from the copious contents of the printed Report, amounting to 295 pages, no department of the public accounts seems to have undergone a more extensive and searching examination than those of Dr. Ryerson. The accusation brought against that gentleman, in his official capacity, as Superintendent of Education, was that he had retained, for his private use, the interest of public moneys entrusted to his charge for official purposes.

Dr. Ryerson's answer to this allegation is, in substance, as follows: that his predecessor in office had been allowed such interest, as a recognised perquisite in remuneration of the extensive services inseparable from the charge of large unexpended balances, for the safe keeping of which he was responsible, and in consideration of the time and labor devoted to the requisite accounts connected with them; that such interest was regarded, further, as, in part, a compensation for the acknowledged inadequacy of the salary attached to the office of Superintendent; and that, even after the increase of salary allowed to Dr. R., the vast amount of extra duty devolving on his office, in consequence of the great extension of the system of public education, and the large expenditures connected with new and numerous ramifications of the business of the Education Office, still left the Superintendent's salary utterly inadequate to the amount of time and labor required of him, or voluntarily assumed by him. Moreover, that one prominent member of the provincial gov-

ernment, to whom he applied for advice, expressed, unhesitatingly, the opinion that the Superintendent was justly entitled to all interest on unexpended balances of educational appropriations; and that one of the legal advisers of the government acknowledged that Dr. R. was entitled in equity, if not in law, to draw and appropriate to his personal use, the interest referred to.

On ascertaining, however, that legally he was not entitled to such interest, Dr. Ryerson refunded the amount which he had drawn, as will be perceived by his Remarks in Reply to a Resolution of the Committee on Accounts, allowing him a hearing on the subject. Their author's many years of devoted and arduous service to the cause of education, and the aspersions to which he has been subjected by the rancor of sectarian, political, and personal hostility, entitle him to an impartial hearing in our community, not less than in his own.

We have condensed above the oral statements made by Dr. Ryerson, on his examination before the Committee on Public Accounts, as given in the public document before named. The following written explanation we copy from the same source. On the perusal of it, our readers will clearly perceive how unfounded were the aspersions to which party and personal enmity succeeded, for a time, in giving currency, to the injury of one whose position, whether as a clergyman or as the educational benefactor of Canada, should have been an effectual protection against the tongue or pen of slander. We regret that want of room in our pages compels us to omit many other documents embodied in the Committee's Report, all of which place in the clearest light the falsity of the charges to which we have referred.

"DR. RYERSON'S REMARKS IN REPLY TO A RESOLUTION OF THE COMMITTEE, DATED THE 21ST OF JULY.

EDUCATION OFFICE,
Toronto, Friday Evening, July 22nd, 1858.

SIR,—I have the honor to acknowledge the receipt of the copy of a Resolution adopted yesterday by the Committee on Public Accounts, to the effect that I be heard further on the subject of the interest on certain public moneys deposited by me in the Bank of Upper Canada from 1851 to 1855; also a note from the Clerk of the Committee intimating that my attendance was requested on Tuesday morning next, the 27th instant, at 10 o'clock, A. M.

Having understood that the Committee, from the pressure of other business, and the lateness of the Session, was not likely to do anything more than report the evidence on this subject, I addressed a letter the 8th instant to the Honorable the Receiver General, expressing a desire and proposing to pay the whole amount of the interest in question, I herewith enclose a copy of that letter,

and have to state that my offer has been accepted, and that I have paid the whole sum accordingly. I had therefore no reason or wish to detain the Committee further on the subject, and called early this evening upon the mover of the Resolution of yesterday, to inform him that I had arranged some days since to leave town for a few days in order to examine the mode of warming public buildings in the United States, with the view of providing for the warming and ventilation of our new Model Grammar School building in the best and most economical manner, and that it would be inconvenient for me to return to Toronto by Tuesday morning, unless my attendance at the Committee was specially required. I learned that the object of the Resolution was to afford me an opportunity of laying before the Committee a brief statement of my receipts, expenditures, and claims in respect to salary and public moneys, and that my attendance was quite optional. I cannot be too grateful for so courteous and kind a consideration in regard to myself; but I think it more becoming in me to leave the matter with the Committee, with some explanatory remarks, and two or three concluding observations in my own defence.

1. I make no claims now for special remuneration for extra official services. What I have said on this subject in my statements to the Committee was intended for the vindication of my own character, rather than to obtain additional remuneration, — to show that if there was any indebtedness in the matter, I was, at least *in equity*, the creditor rather than the debtor; since it was known to my friends, as well as to some members of the Government, before the commencement of the present Session of the Legislature, that I intended, under any circumstances, to repay the full amount of the interest in question either directly to the Government, or by applying it and reporting its expenditure from time to time for public purposes.

2. During my preliminary tour of inquiry of more than a year, (in 1844–5), with a view of laying the foundation of a practical and permanent system of public instruction in Upper Canada, I charge the country with not a sixpence of my expenses, which (besides the payment of a substitute to perform the routine duties of my office in my absence) amounted to £800, — £300 of which I had to provide for out of my small salary, after my return. During six years, from 1848 to 1854, I not only gratuitously edited the *Journal of Education*, but paid at the time the deficiencies of the voluntary subscriptions for the printing of it, amounting to a considerable sum during some years. Since the Legislature provided for its being supplied to the local school authorities, it has not only continued to be edited as heretofore, but I have accounted for every shilling's private subscription, which might have been justly claimed as a perquisite.

3. As to my salary, the law does not specify any sum, but provides that it shall be the same as that of the Chief Superintendent of Education for Lower Canada. Under that provision, it was £500 per annum until 1855, when it became £750, and £1,000 since January, 1857, until the recent reduction in salaries.

4. As to public moneys, received, paid, and accounted for by me, a statement of the amount will be found on the 60th page of the printed Minutes of the Committee. By the 34th section, and the 12th sub-section of the 35th section of the School Act of 1850, I am made responsible and required to give security

for the faithful payment of all moneys granted for the incidental expenses of my office, and for the support of the Provincial Normal and Model Schools, clearly showing that it was not intended that I should pay or be responsible for other moneys. By the statement on page 60 of the Committee's printed Minutes, it will be seen, that from 1850 to the end of 1856, (when I ceased to be responsible for the safe keeping of public moneys,) I received and accounted for the gross sum of £287,333 6s. or $1,149,333; that the moneys which I was required by law to receive, pay, and account for, amounted to £18,582 4s. 10d., or $74,369; and that the moneys I have received, paid, and accounted for, (and administered the law respecting the expenditure of,) beyond what the law required, amounted to £268,781 1s. 2d., or $1,075,004, (a larger sum than I supposed when I wrote my letter to the Receiver General). Had any part of this money been lost, or not forthcoming, through the failure of the Bank, or unfaithfulness on the part of any person to whom I was often compelled to entrust it, I was legally responsible for every farthing. My most unscrupulous assailants have not ventured to assert — not even my accuser before the Committee — that a shilling of this large sum of money has not been duly accounted for; nor will they, I imagine, assert that a person ever acted as treasurer and paymaster for a million of dollars of public money without receiving any remuneration for his responsibility and trouble. For I was not a trustee, as has been asserted, but a treasurer and paymaster. Since the 1st January, 1857, I have acted simply as paymaster.

5. But, I repeat, I do not apply for extra remuneration for such extra official responsibility and labor. Though I have been in public life upwards of thirty-three years, and an officer of Government upwards of thirteen years, I have not accumulated a year's subsistence for my family in advance, in the event of my decease; yet I purpose now, as during my whole life until 1855, to leave others to decide what remuneration I may be entitled to, without any application, direct or indirect, on my part. But, when accused of being a "peculator" upon the funds of that country whose honor and interest it has been the pride and aim of my life to advance, I have felt myself justified and impelled to make personal references and assert equitable rights which I should never have otherwise mentioned.

6. I beg permission to offer a remark or two on the question of accusation itself, though now of no practical application. The impression conveyed by the reported evidence of the Cashier of the Bank of Upper Canada, is, that he had not intended the interest paid on public moneys at my credit at the Bank to be for my benefit. This, however, could not have been the impression of the Cashier of the Bank of Upper Canada in 1851, when the arrangement was made; for it was clear that Mr. Hodgins did not call upon him in behalf of the Government, but on my account; and, had he supposed that the interest was intended as public money, his reply would have been natural and consistent that the Bank did not allow interest on public moneys. But the fact that Mr. Hodgins applied to the Bank on my account, that the Bank did not allow to the Government interest on public deposits, but consented to allow interest on public moneys at my credit there, shows that all parties must have understood the arrangement in 1851 as one affecting myself personally, whatever other impres-

sions may be entertained in 1858. Then I refer to the circular from the Inspector General's Department, dated 1st January, 1857, of which a copy will be found on the 60th page of the Committee's printed Minutes, as showing beyond doubt, that up to that date, all public moneys received by me or other parties were deposited at our personal responsibility and discretion, and that it was then proposed to change the system. I make those references to show that I could have entertained no other impressions on the deposit of public moneys, and any incidental advantages, as well as personal responsibility and discretion connected with it, than those which I have expressed to the Committee, until I learned in 1857 the legal aspect of the question, when, as the honorable the Attorney General has stated, I proposed to give it effect.

7. In conclusion, it remains for me to say a word respecting the author of this accusation. Had his object been the discharge of a public duty, rather than the accomplishment of a particular purpose, his inquiry of the Bank in 1856, as to whether interest had been allowed on public moneys at my credit there, would not have been limited to me or confined to the Bank of Upper Canada, but would have been general in respect to all persons who had deposited public moneys, and to all Banks in which public moneys were deposited. Had this general inquiry been instituted, I could not have been selected as the special object of attack, and the general reason for the circular of the Inspector General would have been apparent. Then, as the Government had taken action on the subject, and I had accounted for the receipt of the money in question, and was awaiting the instructions of the Government respecting the time and mode of its payment, the alleged reasons for making the charge before the Committee for investigation are shown to be groundless, and a mere pretext for the long-meditated and concerted attack which was, according to prediction, to be fatal to me. I regret that so much valuable time of the Committee has been occupied in the investigation of a prosecution of this kind. It happens that the author of this charge against me has, during the last three years, sustained a similar relation to Upper Canada College and the Toronto University that I have to the Normal and Model Schools — at least in recommending and overseeing the expenditures of money; but of such expenditures no account has been laid before the Committee, and no investigation respecting them instituted, though they have, both ordinary and extraordinary, increased beyond all comparison or precedent, and must doubtless be the subject of future Parliamentary investigation and action.

I have the honor to be, sir, your obedient servant,

E. RYERSON.

To the Chairman Committee on Public Accounts."

EDUCATION AND CIRCUMSTANCES FORM THE CHARACTER. — General states of mind, turns of thought, and fixed habits, which are the consequences of them, arise from education and the circumstances men are placed in. It is a necessary effect of the principles of association, that the mind grows callous to new impressions continually; it being already occupied with ideas and selec-

tions which render it indisposed to receive others, especially of an heterogeneous nature. In consequence, we seldom see any considerable change in a person's temper and habits after he is grown to man's estate; nothing short of an entire revolution in his circumstances and mode of life can effect it. — *Dr. Priestly.*

AMERICAN INSTITUTE OF INSTRUCTION.

Twenty-ninth Annual Meeting.

[Reported for the Mass. Teacher, by H. E. Rockwell, Esq.]

The twenty-ninth annual meeting of the American Institute of Instruction, took place at Norwich, Ct., during the 17th, 18th, and 19th of August. The regular exercises commenced on Tuesday afternoon, in the large hall of the Free Academy, and were introduced by the singing of an appropriate piece of sacred music, by scholars of the Central Grammar School, among whom were some very rich and powerful voices, while all evinced the most thorough training.

The President, J. D. Philbrick, Esq., Superintendent of the Schools of Boston, then called on the Rev. Dr. Bond, of Norwich, to invoke the Divine blessing on the meeting; after which a most cordial welcome was given to the members of the Institute, by His Excellency Gov. Buckingham.

Tuesday Afternoon. Welcoming Address.

In behalf of the Trustees of the Free Academy, and of the several Boards of Education in this town, and in behalf of the citizens of our town, I give you, Mr. President, and the members of this Institute, a cordial welcome. You have assembled to discuss measures connected with the cause of education. You will also consider the relation which the Common School, the Academy, the Polytechnic School, the College, and the University, occupy in the minds of the community, and see if it is not possible that they shall be so arranged that each shall occupy its true and proper position in the great system of education which is to bless the world.

In this cause the citizens of Norwich have manifested a deep interest. We have turned aside from our ordinary pursuits, to see if we could not devise some measures by which this great cause could be promoted, not only in this town, but throughout the country. Our interest has been manifested by imposing a heavier tax for this object than for any other. We have given, also, a voluntary contribution of more than $100,000 for the erection of this building, and the endowment of the Norwich Free Academy. I speak this not boastfully. God forbid that I should boast; for we are far short of our duty, and the claims which rest upon us, growing out of this blessed cause.

But you and others before me have manifested a still deeper interest. You have not given an hour or a day, not your money only, but the morning of your lives, the vigor of your manhood, and the experience of maturer years. We thank you for it with all our hearts.

I can hardly help alluding to the event just alluded to in the prayer, — an event which has filled us all with surprise and astonishment; an event which is to coöperate with you and aid you in your work, more than any thing which has transpired during the present century. I allude, of course, to the laying of the Atlantic Telegraph through the depths of the sea, which binds this country to the mother country, with a cord of affection and confidence; a cord of in-

telligence, peace and love, stronger than ever yet bound nation to nation. I know that this is to be an instrument in the hands of God in coöperating with you and others in carrying on everywhere this glorious cause, and communicating intelligence and truth, and thus to bless the world.

Having thus expressed my feelings, I think you will understand the sentiments of those in whose behalf I bid you, and those associated with you, a most cordial welcome to this town.

Response by the President.

It becomes my duty to respond to the words of greeting which we have received from your Excellency, and, in behalf of the members of the American Institute of Instruction, and of the ladies, who are not members, who are present in attendance, and whom we are glad to meet here, I do, sir, return to your Excellency, and through your Excellency to those in whose behalf you have spoken, our most sincere thanks for the cordial welcome which you have given us. We thank your Excellency for the cordial manner in which we have been welcomed to your homes, and I think I express the feelings of all, when I venture to hope that our intercourse with your citizens will be such that, when we take our departure from your beautiful city, we, as well as you, shall feel that it is well that we have been here.

Permit me to say that there are two classes of places where it is thought advisable to hold meetings of the Institute. One class might be regarded as, in some sense, missionary ground, where meetings have been held with a view to exert a healthful local influence; where an interest in education was to be awakened, and a spirit of progress to be excited. But Norwich is not such a place. We come here, may it please your Excellency, not as reformers, to inaugurate an educational reform among you, but as pilgrims to a shrine. We come that we may renew our vows of love and devotion to the great cause in which we are engaged.

Norwich has extraordinary attractions for such a meeting, being located on a great thoroughfare, and where the beauty of the scenery, and the generous hospitality of the place, have long been familiar, even to those who have never looked upon the one nor enjoyed the other. Your schools, too, which cannot be surpassed, are open to all; and the sentiment of the citizens generally, who have by their labors and sacrifices proved their love of the cause of education, constitute attractions not easily resisted.

Neither do I forget that we are on historic ground. Your princely palaces already encircle the royal burial place of the family of Uncas, where the efforts of the great chief of that tribe, in protecting the early colony from the Narragansetts, are properly commemorated. I may say, that the great Mohegan chief illustrated the virtues of savage life in a high degree; and I may add, that the descendants of the white settlers, who now occupy this soil, illustrate as fully the virtues which adorn civilized, refined, and Christian society.

The mention of the name of Uncas brings to my mind the reception that he gave to his foe, the leader of the Narragansetts, here. You remember that when Miantonomo came down with his nine hundred warriors, without an invitation and without notice, nay, with the most hostile intent, he was received by the chief of the Mohegans with a shower of arrows. How different our reception! We come not with hostile intent; we do not come without notice, nor even without a most kindly invitation. The contrast is as great as civilization on the one hand, and barbarism on the other, can present. We have been received with kindly greetings, and the offer of your bountiful hospitality. But in one respect you have exceeded the Mohegan chief. He made prisoners of all whom he did not slay, and who did not run away; you have taken us all captive, and bestowed us in your palatial mansions.

As our reception by the citizens of Norwich differed from that of the visitors of Uncas to him, so will our departure be different; for, while they escaped

with all possible haste, to save their lives, we shall go away casting many a lingering look behind.

Mr. Philbrick concluded by briefly stating the history and objects of the Institute, and expressing his great satisfaction at seeing so large a number of teachers present at the opening of the meetings.

Address of Rev. Barnas Sears.

The hour for the address by Rev. Barnas Sears, D. D., of Brown University, having arrived, he was accordingly introduced, and proceeded to address the Institute, taking a thorough general survey of our entire system of education, and dwelling largely upon topics which relate to higher institutions. These topics were presented in the light of philosophy rather than of history; and instead of confining himself to public schools, the subject of a collegiate course of study, as part of a complete system of education, was made the theme of the address, which occupied more than an hour in its delivery.

The majority of students who enter college, he said, ought to spend a year more than they generally do in their preparation. The reading of the classics is greatly abridged in the college course by compensating for a lack of preparation in the grammar of the Latin and Greek languages. The object of a collegiate course should be to furnish a basis for any kind of higher learning; its leading aim to present a series of gymnastics for the mind. Practical or scientific schools are necessary, in order to fit men for a special calling. Their purpose is mainly to prepare men to act upon outward, physical substances, applying to them the laws of matter. The physical sciences are the means used, and the practical arts the ends contemplated. A knowledge of the ancient world, of what Greece and Rome knew, matters not in such schools.

History is of no consequence, neither the past nor the future. Their chief aim is useful knowledge rather than general education. The results produced are as different from those produced by a college course as are their aims. A man trained in a practical school becomes familiar with one particular art or science; but when we come to inquire into the elements of power at the bar, in the halls of legislation, in statesmanship and diplomacy, nothing can stand side by side with the liberal culture of a university education.

It is of the utmost importance to a country to have flourishing schools of theology, law, and medicine, and it would be well if these could always remain learned professions; but there is a manifest tendency to lower the standard of education in all of them.

We especially need a university in the proper sense of the term; an institution to which men may resort for the pursuit of literature and science in their most important and advanced stages, and where the most distinguished scholars of the country may be maintained, not only for the *diffusion* but the *advancement* of knowledge. It is a great waste of talent to place our ablest men over ordinary colleges, to consume their time in the slow process of elementary teaching — a work which can be better performed by younger men of less eminence. It is a pitiable spectacle to see men whose fame is in all the world, spending their precious time in teaching volatile and unthinking youth, merely for the sake of obtaining a livelihood. They are needed for more important purposes.

The utility of the study of the ancient languages was contended for at length. It differs so much from that of mathematics, that neither can be a substitute for the other. The one is the complement of the other.

But why single out an ancient language? Because it is the fountain head of cultivated languages and of literature. The Greek language is not only the most perfect, but it naturally leads to the Latin language and its modern descendants. The Greek scholar generally becomes a linguist, as no other does.

A strong argument for the cultivation of liberal studies, is the tendency among us to materialism. The intellect of the age stoops to minister to the

lower wants of man. The author, for example, must write what will sell, rather than what will be just and true and most needful. The physician must conform to the tastes and opinions of his patients; and so of other professions. Elevated sentiments in the community, apart from their influence as to so much stock in trade, or as elegant accomplishments, are not an object of eager pursuit.

The Institute then adjourned till evening.

Evening Session.

At 7½ o'clock the Institute again met, and, after some business matters were transacted, were invited to listen to an

Address by Rev. J. P. Gulliver.

Rev. Mr. Gulliver commenced by referring to the perils consequent upon the attempt by a gentleman of one profession to teach those of another; but, he said, there was between the professions of the religious and secular teacher much ground common to both; there was an inseparable connection between the culture of the character and the culture of the faculties. He proposed as his thesis, that the proper education of the Mind has a tendency to secure the proper education of the Heart; or, in other words, that the School is the natural ally of the Pulpit.

The importance of a proper physical training was dwelt upon and enforced by the consideration that disease is the prolific source of guilt. The same law that governs the relations of the body and mind, also governs the relations of the intellect to the moral nature. These considerations were modified by the fact, that mental culture is not the only nor chief source of moral excellence, but only has a tendency to produce good moral results, if that mental culture is of the proper kind. The importance of proper mental culture, in forming a character for truthfulness and a spirit of faith, was also earnestly enforced. Scholarship, in its distinctive meaning, is exact knowledge, and a habit of being exact in all statements relating to matters of study and thought would naturally beget a love of truth in general.

Intellectual culture has always produced an earnest love of truth, and therefore every teacher who, by his own thoroughness and accuracy, produces a love of accuracy in his pupils, is imparting to them a universal love of truth. He may never repeat the story of Annanias; never comment upon the command "Thou shalt not bear false witness," may never unfold the horrors of that lake of fire where all liars "have their part," but he is contributing to the success of those important teachings, by inspiring a scholar's love for exact truth, and by awakening a scholar's contempt for the shams of the pedant, the frauds of the impostor, and the superstitions of the ignorant.

The address closed by an earnest appeal for the right cultivation of all the faculties, and a proper training of the imagination, as the field of both teacher and preacher was the same — a conflict with ignorance for the regeneration of the world.

Second Day — Wednesday.

There was a large attendance this morning, embracing an unusual number of veteran educators.

The exercises were opened with a sacred hymn and prayer, by Rev. Mr. Smithett, of Boston.

After the reading of the minutes of yesterday's proceedings, on motion of Mr Daniel Mansfield, of Cambridge, the President appointed the following gentlemen as a committee to nominate officers for the ensuing year: Messrs. Daniel

Mansfield, of Cambridge, Amos Perry, of Providence, R. I., T. M. Valentine, of Brooklyn, N. Y., John Kneeland, of Roxbury, Mass., Richard Edwards, of St. Louis, Mo., D. N. Camp, of New Britain, Conn., Ariel Parish, of Springfield, Mass., Jacob Batchelder, of Salem, Mass., and Zuinglius Grover, of Chicago, Ill.

Discussion.

At this time the Institute entered upon the discussion of the question, as to the education of the sexes together in the public schools.

[*This discussion, together with other exercises of the Institute, will be continued in the next number of the Teacher.*]

Mathematical.

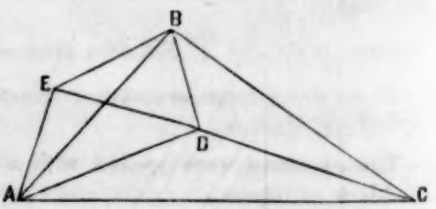
Question 17. Two mowers, A and B, mow a field of grass 15 rods long and 12 wide. A, the better mower, "went ahead" and "cut B's corners" until the field was mown. Required the number of square rods mown by each mower, their swarths being cut 6 feet wide.

Question 18. Suppose 8 sheep in 7 weeks to eat all the grass on 400 square rods of land; also all that grows in the same time; and suppose 9 sheep in 8 weeks to eat all the grass on 500 square rods of land; also all that grows in the same time. How many sheep will be required to eat all the grass on 600 square rods of land in 12 weeks; also all that grows in the same time: there being the same quantity of grass upon each square rod, and the growth being constant and uniform.

Solution of Question 5.

[The angles of a triangle and the distances of a point from the three vertices being given, to construct the triangle.]

Let ABC be the triangle, of which the three angles and the distances AD, DB, and DC, are known.



Make the angle DAE = CAB and ADE = BCA. The triangle AED is then similar to ABC; and, as the angles EAD and ADE, and the side AD are known, the side AE may be found.

From each of the angles EAD and BAC take BAD, and we have BAE = DAC. Also, from the similarity of the triangles EAD and ABC, we have

EA : AB = AD : AC. Hence the triangles BAE and DAC have an equal angle contained by proportional sides. They are, therefore, similar, and give the proportion AD : AE = DC : EB. From this proportion EB is determined; and, therefore, in the triangle AEB we can find the side AB, the value of which will enable us to construct the triangle ABC.

Solved also by M. C. S. G. B. V.

SOLUTION OF QUESTION 12.

[It is required to mix 1200 lbs. of cream of tartar, worth 30 cents per lb., with rice worth 4 cents per lb., so that the mixture, when ground, may have cost 24 cents per lb.; the grinding costing $\frac{3}{4}$ cent per lb, and there being a waste of 10 per cent in the process of grinding. How many pounds of rice must be sent to the mill?]

From the nature of the question, it is evident that $\frac{9}{10}$ of the quantity of the two ingredients must be subject to the whole expense, therefore:

If $\frac{9}{10}$ lb. cream tartar cost $30\frac{3}{4}$ cents, 1 lb. will cost $34\frac{1}{6}$ cents.

If $\frac{9}{10}$ lb. rice cost $4\frac{3}{4}$ cents, 1 lb. will cost $5\frac{5}{18}$ cents.

Therefore, 1 lb. cream tartar, sold at 24 cents, loses $10\frac{1}{6}$ cents.

1 lb, rice gains $18\frac{13}{18}$ cents.

Ratio of $18\frac{13}{18}$ to $10\frac{1}{6} = 1\frac{154}{183}$.

1200 lbs. $\div\ 1\frac{154}{183} = 651\frac{218}{337}$ lbs. rice. *Ans.*

A. C. S.

Webster School, Cambridgeport.

Solution Second.

Let $x =$ pounds of rice,

there being 1200 pounds of cream of tartar.

$4x =$ cost of rice, at 4 cents per lb.

36000 cents $=$ cost of cream of tartar, at 30 cents per lb.

$36000 + 4x =$ cost of mixture,

$$\frac{3}{4}(1200 + x) = \frac{3600 + 3x}{4} = \text{cost of grinding,}$$

$$\frac{9}{10}(1200 + x) = \frac{10800 + 9x}{10} = \text{what remains after grinding,}$$

$$\left(\frac{10800 + 9x}{10}\right) \times 24 = \frac{129600 + 108x}{5} = \text{cost of mixture at 24 cents per lb.}$$

$$36000 + 4x + \left(\frac{3600 + 3x}{4}\right) = \text{total cost of mixture.}$$

$$36000 + 4x + \left(\frac{3600 + 3x}{4}\right) = \frac{129600 + 108x}{5}, \therefore$$

$$72000 + 80x + 18000 + 15x = 518400 + 432x,$$

$$337x = 219600,$$

$$x = 651\ \tfrac{218}{337} \text{ lbs. of rice.}$$

C. W N.

Solved also by many others. English High School.

Intelligence.

Boston Music School. — This institution was incorporated in May, 1857, since which time it has been in successful operation.

The plan on which this school is organized, furnishes instruction to pupils in vocal and instrumental music, and in musical composition. The study of the piano-forte and harmony is enjoined upon each pupil, and that of singing, or of any orchestral instrument, is optional, either as a primary or a secondary study. The pupil, however, can study only in three branches in one term, and in each branch two lessons a week will be given, all of which instruction is included under the same price of tuition.

This is the first institution of the kind organized in this country, and it promises to be to America what the music schools in Germany, Paris and Italy are to Europe. The importance and value of such facilities for instruction as the board of managers of this school present, cannot be overstated. By a judicious arrangement the instruction, which is imparted by practical as well as theoretical teachers, is emphatically thorough in every department, and is given at a very low price.

The want of such an institution has long been felt in our community, and it cannot be doubted that the efforts of those who have established it, and the peculiar advantages it offers, will be properly appreciated and encouraged. Pupils of both sexes are admitted, and, except in choral practice, their instruction will be kept entirely distinct. Pupils can enter the school at any stage of their musical progress, and the course of their studies will be arranged by the Board of Instruction. A new term will commence on the first Monday of October next. — *Transcript.*

☞ Mr. H. E. Rockwell, formerly of Uxbridge, has been appointed Master of the High School in Millbury.

☞ Mr. I. N. Beals, of Quincy, has been appointed Principal of the Somerville High School, in place of S. J. Pike, resigned.

☞ Rev. Julius H. Seelye, of Schenectady, N. Y., has been appointed Prof. of Intellectual and Moral Philosophy, in Amherst College.

Reviews and Book Notices.

Sheppard's Constitutional Text Book, which has before been noticed in our journal, has recently been introduced into the Normal School, at Bridgewater, and, as will be seen from the following letter from Mr. Conant, has given the highest satisfaction:

State Normal School, Bridgewater, Mass., April 13, 1858.

Messrs. Childs & Peterson, — Having previously examined Sheppard's Constitutional Text-Book, I was so impressed with its excellence, as a book containing that amount and kind of matter which should be studied in all our schools, that I immediately put it into the hands of our scholars in this institution; and we have used it more than six weeks with the best effect. I consider it a very *capital* work.

Very truly yours,
(Signed) M. Conant.

☞ We have received from the publishers, Crosby, Nichols & Co., Boston, a copy of Hanaford & Payson's "Book-keeping by Single and Double Entry, for Schools and Colleges, adapted to Payson, Dunton & Scribner's Combined System of Penmanship." The clear exposition of principles and the beautiful models of penmanship which this work contains, cannot fail to make it a favorite text-book with teachers.

☞ By a vote of the School Committee of Boston, Eaton's Arithmetic has been adopted as a text-book in the public schools.

THE

MASSACHUSETTS TEACHER.

OCTOBER, 1858.

Volume XI. JOHN D. PHILBRICK, Editor for this month. Number 10.

LIBERAL EDUCATION.

THIS is the subject of an Address, delivered before the Phi Beta Kappa Society, of Harvard College, on the 22d of July, 1858, by Rev. Thomas Hill, of Waltham. The orator indicates the scope of his discussion as follows: "What principles should guide us in the selection and arrangement of studies in the academic course, — that is, in the whole course previous to the student's entering upon the particular special pursuits to which his tastes or his choice of a profession will finally lead him? What branches are essential, and which are not essential? How far should the essential branches be carried? How far should non-essential branches be permitted to occupy the student's time? What powers of the mind most need education? How shall it be given them? What principles should guide us — this is the discussion to which I invite your attention — what principles should guide us in deciding these various points?"

These principles he deduces from a survey of the powers of the human mind and of the objects on which those powers can be exercised. He regards the whole range of the objects of scientific study as included in, and divided between, theology, psychology, history, natural history, and mathematics, which he denominates the hierarchy of sciences.

Respecting the natural order of these branches in the course of education, he arrives at the conclusion "that the mathematics are the preliminary studies; that they should be followed first by natural history, then by history, and finally by psychology and

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